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recognition of said feature;

an intelligent controller having associated therewith a
means for accessing said programming material in
response to receiving said coded signal; and
a display unit for presenting said programming
material.

169. A system as defined in claim 168 wherein said printed
official document comprises a license.

170. A system as defined in claim 168 wherein said printed
official document comprises a registration.

171. A system as defined in claim 168 wherein said printed
official document comprises a passport.

172. A system as defined in claim 168 wherein said printed
official document comprises a visa.

173. A system as defined in claim 168 wherein said printed
official document comprises a Green Card.

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180. A system as defined in claim 168 wherein said printed official document comprises a health insurance card.

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181. A system as defined in claim 180 wherein said health insurance card comprises a Medicaid card.
182. A system as defined in claim 168 wherein said printed official document comprises a document produced by a government agency.
183. A system as defined in claim 168 wherein said printed official document comprises an identification card issued by a government agency.
184. A system as defined in claim 168 wherein said printed official document comprises a deed.
185. A system as defined in claim 168 wherein said printed official document comprises an invoice.
186. A system as defined in claim 168 wherein said printed official document comprises a receipt.
187. A system as defined in claim 168 wherein said printed

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official document comprises a bill of sale.

188. A system as defined in claim 168 wherein said printed
official document comprises a report of a government agency.

189. A system as defined in claim 168 wherein said printed
official document comprises a library card.

190. A system as defined in claim 168 wherein said printed
official document comprises a newsletter.

191. A system as defined in claim 168 wherein said printed
official document comprises an application form.

192. A system as defined in claim 168 wherein said printed
official document comprises a lottery ticket.

193. A system as defined in claim 168 wherein said printed
official document comprises a tax schedule.

194. A system as defined in claim 168 wherein said printed

official document comprises a tax withholding form.

200. A system as defined in claim 197 wherein said data link comprises a programming data link.

Figure 1. The effect of the number of iterations (n) on the accuracy of the proposed algorithm. The figure shows two plots side-by-side. The left plot shows the error norm $\|e\|_2$ versus n , ranging from 0 to 100. The right plot shows the relative error $\frac{\|e\|_2}{\|x\|_2}$ versus n , ranging from 0 to 100. Both plots show a decreasing trend as n increases, indicating convergence.

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207. A system as defined in claim 197 wherein said data link comprises an "information superhighway" data link.

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208. A system as defined in claim 207 wherein said "information superhighway" data link comprises the internet.

209. A system as defined in claim 207 wherein said "information superhighway" data link comprises the world wide web.

210. A system as defined in claim 207 wherein said "information superhighway" data link comprises a computer network.

211. A system as defined in claim 207 wherein said "information superhighway" data link comprises an ISDN network.

212. A system as defined in claim 207 wherein said "information superhighway" data link comprises a telephone line.

213. A system as defined in claim 207 wherein said "information superhighway" data link comprises a CATV line.

214. A system as defined in claim 207 wherein said "information superhighway" data link comprises a local area network.

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215. A system as defined in claim 207 wherein said "information superhighway" data link comprises a wide area network.
216. A system as defined in claim 207 wherein said "information superhighway" data link comprises a data communications network.
217. A system as defined in claim 207 wherein said "information superhighway" data link comprises an Internet Product Service Directory.
218. A system as defined in claim 207 wherein said "information superhighway" data link comprises a globally based digital communications network.
219. A system as defined in claim 207 wherein said "information superhighway" data link comprises a wireless network link.
220. A system as defined in claim 207 wherein said "information superhighway" data link comprises a Wireless Application Protocol internet.

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227. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a printed character.

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228. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a symbol.
229. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a pictorial icon.
230. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises an invisible indicia.
231. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a two-dimensional figure.
232. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises an icon.
233. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises an invisible icon.
234. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a watermark.

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235. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises an invisible watermark.
236. A system as defined in claim 235 wherein said invisible watermark comprises a digital watermark.
237. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a series of alphanumeric characters.
238. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a binary code.
239. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a digital watermark.
240. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a magnetic strip.
241. A system as defined in claim 168 wherein said at least one

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machine recognizable feature comprises a code.

242. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises an online shopping product code.

243. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a home shopping product code.

244. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises an online shopping service code.

245. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a home shopping service code.

246. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises an analog pattern.

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247. A system as defined in claim 168 wherein said at least one machine recognizable feature comprises a hieroglyphic character.
248. A system as defined in claim in 168 wherein said programming material comprises information.
249. A system as defined in claim 248 wherein said information comprises information about an individual identified by said printed official document.
250. A system as defined in claim 248 wherein said information comprises a "background check" of an individual identified by said printed official document.
251. A system as defined in claim 248 wherein said information comprises information about an organization identified by said printed official document.
252. A system as defined in claim 248 wherein said information comprises a "background check" of an organization identified

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- 1. The first part of the document is a list of references. The references are listed in a vertical column on the left side of the page. The references are:

253. A system as defined in claim 248 wherein said information comprises information about an individual issuing said printed official document.
254. A system as defined in claim 248 wherein said information comprises information about an organization issuing said printed official document.
255. A system as defined in claim 248 wherein said information comprises information about a product associated with said printed official document.
256. A system as defined in claim 248 wherein said information comprises information about a service associated with said printed official document.
257. A system as defined in claim 168 wherein said programming material comprises a service.

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258. A system as defined in claim 257 wherein said service includes displaying promotional programming on said display unit of said user.
259. A system as defined in claim 257 wherein said service includes conducting an interaction with said user via a telephone.
260. A system as defined in claim 257 wherein said service includes conducting an interaction between a plurality of users via an online communication chat link.
261. A system as defined in claim 257 wherein said service comprises engaging in an application process.
262. A system as defined in claim 257 wherein said service comprises engaging in an examination process.
263. A system as defined in claim 257 wherein said service comprises renewing said printed official document.

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270. A system as defined in claim 268 wherein said device
containing a microprocessor is portable.

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271. A system as defined in claim 168 wherein said display unit comprises a personal digital planner.
272. A system as defined in claim 168 wherein said display unit comprises an internet appliance.
273. A system as defined in claim 168 wherein said display unit comprises a cellular telephone.
274. A system as defined in claim 168 wherein said display unit comprises a wireless communication device.
275. A system as defined in claim 168 wherein said display unit comprises a simulated book.
276. A system as defined in claim 168 wherein said display unit comprises an intelligent terminal.
277. A system as defined in claim 168 wherein said display unit comprises a web-based television.

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278. A system as defined in claim 168 wherein said display unit comprises a pager.

279. A system as defined in claim 168 wherein said display unit comprises an Internet-enabled telephone.

280. A system as defined in claim 168 wherein said recognition unit is selected from a group consisting of a hand-held unit, a scanner, a bar code scanner, an optical code reader, an optical reader, a personal camera, a personal computer reader, a digital camera, a digital mouse and an optical mouse.

281. A system as defined in claim 280 wherein said recognition unit is linked to a personal computer.

282. A system as defined in claim 280 wherein said recognition unit is linked to a wireless interface.

283. A system as defined in claim 282 wherein said wireless interface comprises a wireless network.

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scanning said machine recognizable feature of said
printed official document; and

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transmitting data associated with said machine
recognizable feature via a communication link to access said
programming material, wherein said programming material is
related to said printed official document.

297. The method of claim 296 wherein said communication link
includes the Internet.

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298. The method of claim 296 wherein said machine recognizable
feature is selected from a group consisting of bar code,
universal product code, invisible bar code, magnetic code,
printed character, symbol, icon, invisible indicia, two-
dimensional figure, icon, invisible icon, watermark,
invisible watermark, digital watermark, series of
alphanumeric characters, binary code, digital watermark,
magnetic strip, code, analog pattern, and hieroglyphic
character.

299. A method of providing a user access to supplemental
programming material associated with a printed official
document, comprising the steps of:

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imprinting a machine recognizable feature within said printed official document wherein said machine recognizable feature has associated therewith a command sequence for accessing programming material;

scanning said machine recognizable feature within said printed official document and downloading data indicative of said machine recognizable feature via the Internet to a remote server;

accessing programming material from said remote server;
and

transmitting said programming material to said user allowing said user to perceive said programming material in a humanly perceivable form, wherein said programming material is related to said printed official document.

300. The method of claim 299 wherein said programming material comprises multimedia.

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C6 > 301. The method of claim 299 wherein said machine recognizable feature is selected from a group consisting of a bar code, a universal product code invisible bar code, magnetic code,

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printed character, symbol, icon, invisible indicia, two-dimensional figure, icon, invisible icon, watermark, invisible watermark, digital watermark, series of alphanumeric characters, binary code, digital watermark, magnetic strip, code, analog pattern, and hieroglyphic character.

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